

## UTC CLOCK COORDINATION

For the past several months comparisons of the coordinated universal time (UTC) clocks at the U.S. Naval Observatory (USNO) and at NBS (presently known as NBS-UA) have shown a systematic offset in rate of approximately 1.3 parts in  $10^{12}$ . With the intention to improve the synchronization of these two clocks and to maintain their synchronization, the NBS clock was advanced 200 microseconds at 0000 UT on 20 September 1967. Consequently, the phases of the time signals from NBS stations WWV, WWVH, and WWVL were advanced 200 microseconds at the same time. The effect of this reset in epoch was to make the transmitted epochs of time signals from these NBS stations about 30 microseconds early relative to the UTC clock at USNO on the date of adjustment. Because of the offset in rates, the indicated times of the UTC clocks of the two agencies will gradually approach each other. Coincidence in epoch is expected around the middle of 1968, at which time appropriate steps will be taken to ensure continued close agreement.

Following the reset in epoch the NBS clock controlling the time signals emitted from these stations will be referred to as UTC(NBS). Similarly, the corresponding clock at the Naval Observatory will be designated UTC(USNO).

<sup>1</sup> In performing microwave calibrations, a considerable amount of time usually is needed to prepare the system for measurement operation. Much of this preparation is related to adjustment of the system to the frequency of operations selected for the calibration. Time and cost often can be reduced by minimizing the number of times the operating frequency of the calibration system must be readjusted.